AMENDMENTS TO THE CLAIMS

Please amend claim 1 as indicated below.

1.   (Currently amended) A wheelchair having a primary articulated member and at least one secondary articulated member, a frame, a controller, a primary sensor for detecting the position of the primary member and sending a signal to the controller indicative of the position of the primary member relative to the frame, a secondary sensor for detecting the position of the secondary member, a second actuator configured to move the second articulated member, wherein the and a controller is configured to send signals to the second actuator for capable of articulating the secondary articulated member as a function of the position movement of the primary articulated member.

2.   (Original) The wheelchair of claim 1 in which the controller is configured to receive input from the primary and secondary sensors on a continuous basis.

3.   (Original) The wheelchair of claim 1 in which the primary member is a back frame, with the secondary articulated part being a seat frame.

4.   (Original) The wheelchair of claim 1 in which the primary member is a back frame, with the secondary articulated part being a legrest.

5.   (Original) The wheelchair of claim 1 in which the primary member is a back frame, with the secondary articulated part being a shear plate.

6.   (Original) A wheelchair comprising:

a first articulated member that is mounted for articulation within a first range of first member positions, the first articulated member having a first actuator for moving the first articulated member within the first range;

a second articulated member that is mounted for articulation within a second range of second member positions, the second articulated member having a second actuator for moving the second articulated member within the second range;

a controller connected to the first and second actuators for articulating the first and second articulated members, respectively, in a coordinated fashion, the controller being programmed with a sequence of setpoints of ordered pairs of numbers, one of the numbers of the ordered pairs being indicative of the position of the first articulated member along the first range, and the other of the numbers of the ordered pairs being indicative of the position of the second articulated member along the second range; and

an input device associated with the controller to provide input from a wheelchair user to the controller;

wherein the controller is programmed to provide signals, in response to signals from the input device, to the first and second actuators, with the signals directing articulation of the first and second members along the setpoints.

7.   (Original) The wheelchair of claim 6 in which the setpoints of the sequence can be modified by input from the input device.

8.   (Original) The wheelchair of claim 6 in which the setpoints of the sequence can be modified by input from sensors for sensing any one of

the wheelchair velocity,

the acceleration of the wheelchair, and

the angle of incline of a supporting surface for the wheelchair.

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9.   (Original) The wheelchair of claim 6 in which the controller is programmed with at least one additional sequence of setpoints of ordered pairs of numbers associated with coordinated articulation of an additional articulated member, with the at least one additional sequence coordinating the articulation of the additional articulated member and either the first or the second articulated member.

10.   (Original) The wheelchair of claim 6 in which the first articulated member is a back frame, and second articulated member is a legrest.

11.   (Original) The wheelchair of claim 6 in which the sequence of setpoints is a primary sequence, and in which the controller is programmed with at least one additional sequence of setpoints of ordered pairs of numbers, with the additional sequence being an associated with coordinated articulation of the first and second articulated members using different setpoints from those of the primary sequence, and wherein the controller is configured to switch from the primary sequence to the additional sequence based on input from the input device.

12.   (Original) The wheelchair of claim 6 in which the sequence of setpoints is a primary sequence, and in which the controller is programmed with at least one additional sequence of setpoints of ordered pairs of numbers, with the additional sequence being an associated with coordinated articulation of the first and second articulated members using different setpoints from those of the primary sequence, and wherein the controller is configured to switch from the primary sequence to the additional sequence based on input from sensors for sensing any one of
the wheelchair velocity,
the acceleration of the wheelchair, and
the angle of incline of a supporting surface for the wheelchair.

13.   (Original) The wheelchair of claim 6 in which the sequence of setpoints is a primary sequence, and in which the controller is programmed with at least one additional sequence of setpoints of ordered pairs of numbers, with the additional sequence being associated with coordinated articulation of the first and second articulated members using different setpoints from those of the primary sequence, and wherein the controller is configured to switch from the primary sequence to the additional sequence based on the direction of articulation of one of the first and second articulated members.

14.   (Original) A wheelchair comprising:

a first articulated member that is mounted for articulation within a first range of first member positions, the first articulated member having a first actuator for moving the first articulated member within the first range;

a second articulated member that is mounted for articulation within a second range of second member positions, the second articulated member having a second actuator for moving the second articulated member within the second range;

a controller connected to the first and second actuators for articulating the first and second articulated members, respectively, in a coordinated fashion, the controller being programmed with a first equation that controls the movement of the first articulated member along the first range as a function of time, and the controller being programmed with a second equation that controls the movement of the second articulated member along the second range as a function of time; and

an input device associated with the controller to provide input from a wheelchair user to the controller;

wherein the controller is programmed to provide signals, in response to signals from the input device, to the first and second actuators, with the signals directing

articulation of the first and second members along the first and second ranges, respectively, and according to the first and second equations, respectively.

15. (Original) The wheelchair of claim 14 in which the controller is programmed to direct the first and second actuators to move the first and second members, respectively, in a continuous motion along the first and second ranges, respectively.

16. (Original) The wheelchair of claim 14 in which the first and second equations can be modified by input from the input device.

17. (Original) The wheelchair of claim 14 in which the first and second equations can be modified by input from sensors for sensing any one of

the wheelchair velocity,

the acceleration of the wheelchair, and

the angle of incline of a supporting surface for the wheelchair.

18. (Original) The wheelchair of claim 14 in which the controller is programmed with at least one additional equation associated with coordinated articulation of an additional articulated member, with the at least one additional equation coordinating the articulation of the additional articulated member and either the first or the second articulated member.

19. (Original) The wheelchair of claim 14 in which the first articulated member is a back frame, and second articulated member is a legrest.

20.   (Original) The wheelchair of claim 14 in which the first and second equations are primary equations, and in which the controller is programmed with at least one additional equation, with the additional equation being an associated with controlling the movement of the first articulated member along the first range as a function of time, and wherein the controller is configured to switch from the one of the primary equations to the additional equation based on input from sensors for sensing any one of

the wheelchair velocity,

the acceleration of the wheelchair, and

the angle of incline of a supporting surface for the wheelchair.

21.   (Original) The wheelchair of claim 14 in which the first and second equations are primary equations, and in which the controller is programmed with at least one additional equation, with the additional equation being an associated with controlling the movement of the first articulated member along the first range as a function of time, and wherein the controller is configured to switch from the first primary equation to the additional equation for controlling the movement of the first articulated member along the first range as a function of time based on the direction of articulation of the first articulated member.